

Crestron TPMC-17-QM-L

Isys i/O™ 17" Wall Mount Touchpanel Media Center

with QuickMedia™ Transport Technology

Isys i/O ingeniously integrates touchpanel control with embedded PC functionality, delivering a unified multimedia presentation solution. Incorporating modern styling in a versatile flush mount design, the TPMC-17-QM-L Touchpanel Media Center features a spectacular 17" WXGA widescreen display offering an extra wide viewing angle with exceptional brightness and contrast for stunning control graphics, high-res images, embedded PC applications, and full-motion video.

Touchpanel Control and Presentation—In every sense, the TPMC-17-QM-L is a true Crestron touchpanel, offering vibrant 24-bit color depth with 8-bit alpha channel to produce incredible 3D graphics, high-res images, translucency, dynamic text and graphics, full-motion animations, multimode objects, and dramatic transition effects, all with astonishing speed. But more than a touchpanel, the TPMC-17-QM-L is also a dynamic presentation source, delivering high-resolution graphics and audio to any sized audience via integrated QuickMedia transport technology.

Embedded PC—The power of Isys i/O is in its embedded PC engine, combining rock solid touchpanel performance with enhanced capabilities for surfing the Internet, streaming multimedia, and desktop videoconferencing. Running the Microsoft® Windows® XP Embedded operating system, Isys i/O delivers a reliable and secure platform for touchpanel control with integrated PC functionality.

With built-in Windows Media® Player, RealPlayer®, and Internet Explorer, plus viewers for Word, Excel, PowerPoint®, and Adobe® Acrobat®, the TPMC-17-QM-L serves as a multimedia presentation source without necessitating a separate computer. NetMeeting® and Remote Desktop are also included to enable videoconferencing and provide remote access to other computers. Programmatic control erases the lines between control system and PC, allowing programmers to customize each application's behavior to create a truly powerful and user-friendly interface.

Both Cresnet and high-speed Ethernet are standard providing for seamless communications with Crestron control systems, computers, digital media servers, and other IP-based devices. Wi-Fi wireless networking and memory expansion are easily added through two PC card slots, and two USB ports enable the connection of an external mouse and keyboard (sold separately), as well as USB cameras, CD ROM drives, and memory devices.*

Touch-the-PC—In addition to its built-in PC, the TPMC-17-QM-L is also enabled to display and control externally-connected computers. Crestron's exclusive "Touch-the-PC" technology allows real-time touchpanel navigation of any Windows PC through a direct high-speed serial connection.

MediaMarker™ Annotation—Built-in annotation allows presenters to write or draw electronically on the touchscreen using a finger or stylus. Whether drawing freehand on a whiteboard screen, highlighting points on a spreadsheet, or making notes over motion video or still images, MediaMarker facilitates crystal clear visual communications.

Dual-Window HD Video and RGB**—In addition to its internal PC and streaming video applications, the TPMC-17-QM-L can also simultaneously display two fully-scalable, full-motion video windows. Each window supports standard video, HDTV, and high-resolution RGB signals from external AV and computer sources. Discrete video scalers with motion adaptive deinterlacing bring out the highest detail, minimizing visible scan lines and motion artifacts for a truly remarkable picture. Advanced gamma correction and built-in time base correction ensure accurate color reproduction and a jitter-free image.



High-Quality Audio**—An integrated microphone, biamplified speakers, stereo headphone output, and PC audio output are all built into the touchpanel to support full AV, intercom, desktop conferencing, and multimedia computer capabilities. Customized WAV files can be loaded on the touchpanel to add dimension to the touchscreen graphics with personalized sounds, button feedback, and voice prompts.

QuickMedia™—All audio and video connections are facilitated using Crestron's revolutionary QuickMedia transport, providing a flexible yet remarkably simple wiring solution. Through QuickMedia (QM), the TPMC-17-QM-L interfaces directly with other QM-based products using inexpensive CAT5e type cable.

The two QM Input ports each support non-interlaced RGB up to 1600 X 1200 pixels, as well as composite, S-Video, and component video signals. QM Input #1 includes software-adjustable compensation for cable runs up to 328 feet; Input #2 allows up to 300 feet for video and HDTV, and shorter distances for RGB computer signals. Both QM Inputs receive audio signals from external microphone and stereo line level sources.

High-resolution RGB graphics and 24-bit digital audio are output from the internal PC and microphone via the QM Output port for audience presentation and intercom purposes.

Versatile Flush Mount Design—The TPMC-17-QM-L is designed for flush-mount installation in a wall, lectern or similar flat surface. A variety of mounting accessories is offered including optional back box and 19" rack mount kit. Five backlit pushbuttons are also provided, allowing for quick access to commonly used functions such as volume, home, and reset.

- > 17" active matrix touchscreen display | 1280 x 768 resolution
- > 24-Bit Isys i/O graphics | Synapse image rendering algorithm
- > Windows XP Embedded operating system
- > Onboard PC applications for Web browsing, streaming media, videoconferencing, remote computer control, and digital media presentation - no computer required!
- > Built-in real-time annotation using Crestron MediaMarker
- > High-performance dual-window video and RGB display**
- > Built-in 10 watt biamplified speaker system and microphone**
- > QuickMedia AV connectivity | audience presentation output**
- > Secure high-speed Ethernet and Cresnet communications
- > Optional USB keyboard and optical mouse
- > Wall, lectern, and rack mounting options
- > Available in black or white

Crestron Isys i/O™ TPMC-17-QM-L 17" Wall Mount Touchpanel Media Center

AVAILABLE MODELS

TPMC-17-QM-LB Isys i/O 17" Wall Mount Touchpanel Media Center, Black

TPMC-17-QM-LW Isys i/O 17" Wall Mount Touchpanel Media Center, White

SPECIFICATIONS

Touchscreen Display

Display Type: TFT Active matrix color LCD

Size: 17 inch (43.2 cm) diagonal

Aspect Ratio: 15:9 WXGA

Resolution: 1280 x 768 pixels

Brightness: 450 nits (cd/m²)

Contrast: 400:1

Color Depth: 24-bit, 16.7M colors

Illumination: Backlit fluorescent

Viewing Angle: ±88° horizontal, ±88° vertical

Touchscreen: Resistive membrane

Processor

VIA Eden™ 667 MHz CPU

Memory

SDRAM: 512 MB

Flash: 512 MB internal compact flash card, expandable via rear panel PC Card slots

Operating System

Microsoft® Windows® XP Embedded

Graphic Engine

Isys i/O engine, VIA Unichrome™ CLE266 chipset, 24-bit non-palette graphics + 8-bit alpha channel translucency, 16.7 million colors, Synapse image rendering algorithm, multi-mode objects, dynamic graphics, full-motion (60 fps) animation, transition effects, color key video windowing

Embedded Software Applications*

Crestron MediaMarker™, Microsoft Internet Explorer w/Macromedia® Flash® plug-in, Windows Media® Player, RealPlayer®, Wordpad, Remote Desktop, NetMeeting®, Java™ Runtime, DirectX®, and Axis ActiveX® control, plus viewers for PowerPoint®, Excel, Word, and Adobe® Acrobat®

Ethernet

10BaseT/100BaseTX, auto-negotiating, full/half duplex TCP/IP, UDP/IP, CIP, DHCP, IEEE 802.3U compliant

Wireless

Wireless Ethernet capable using third-party 802.11 PC card*
(Wired connections required for power, audio, video and RGB)

Video/RGB**

Signal Types: RGB and auto-detecting composite, S-Video, or component video

Formats: SDTV 480i (NTSC) & 576i (PAL), EDTV 480p & 576p, HDTV 720p & 1080i; RGB(VGA) up to UXGA 1600 x 1200

Color Depth: 24-bit, 16.7M colors

Features: Dual-window each scalable to full-screen, time base correction, gamma correction, line doubling, motion adaptive deinterlacing, reverse 3:2/2:2 pulldown

Streaming/File Formats: ASF, ASX, AVI, MPEG, WMV, WMX, WVX (via Windows Media Player); MPEG2, MPEG4, MJPEG (via Axis ActiveX control)*

Audio**

Hardware Features: Built-in microphone and bi-amplified speakers, stereo headphone output, internal volume control and audio mixer

Streaming/File Formats: MP3, WAV, WAX, WMA (via Windows Media Player)

Audio Feedback (WAV): 8 & 16 bit PCM, mono & stereo, 8 – 44 kHz sampling rates

D-A / A-D Conversion (QM): Burr Brown 24-bit, 48 kHz

Amplification: Bi-amplified, mono, 5 Watts for high-frequency, 5 Watts for low-frequency

Buttons

▼ ▲ ■ ✎ (4) Backlit "softkey" buttons, programmable

⌂ (1) Backlit hard reset button, reboots the touchpanel system

Connectors

QM IN 1: (1) 8-wire RJ45 female, QuickMedia input port

Signal Types: Dynamically configurable under system control as:

(1) RGB input with stereo program audio and (2) mic channels, or

(1) Auto-detecting component (YPbPr), S-Video (Y/C), or composite video input with stereo program audio and (2) mic channels;

RGB Format: RGBHV

RGB Input Resolution, Non-interlaced: 640 x 480 minimum to 1600 x 1200 maximum (70 Hz limit at 1600 x 1200);

Video/HDTV Formats: 480i (NTSC), 576i (PAL), 480p, 576p, 720p and 1080i

Horizontal Frequency: 15 to 100 kHz

Vertical Frequency: 50 to 85 Hz

Delay Skew Compensation: 0 – 22 nS

Connects to QM output port of a QM-TX or other QuickMedia device via CresCAT-QM or CresCAT-IM cable;

Maximum Cable Length: 328 ft (aggregate distance from QM origination)

QM IN 2: (1) 8-wire RJ45 female, QuickMedia input port

Signal Types: Dynamically configurable under system control as:

(1) RGB input with stereo program audio and (2) mic channels, or

(1) Auto-detecting component (YPbPr), S-Video (Y/C), or composite video input with stereo program audio and (2) mic channels;

RGB Format: RGBHV

RGB Input Resolution, Non-interlaced: 640 x 480 minimum to 1600 x 1200 maximum (70 Hz limit at 1600 x 1200);

Video/HDTV Formats: 480i (NTSC), 576i (PAL), 480p, 576p, 720p and 1080i

Horizontal Frequency: 15 to 100 kHz

Vertical Frequency: 50 to 85 Hz

Delay Skew Compensation: none

Connects to QM output port of a QM-TX or other QuickMedia device via CresCAT-QM or CresCAT-IM cable;

Maximum Cable Length (Video/HDTV): 300 ft (aggregate distance from QM origination)

Maximum Cable Length (RGB @ 60Hz): 216 ft for 640x480, 136 ft for 800x600, 84 ft for 1024x768, 50 ft for 1280x1024, 20 ft for 1600x1200 (using CresCAT-QM or CresCAT-IM cable)

QM OUT 1: (1) 8-wire RJ45 female, QuickMedia output port containing RGB output with stereo audio from internal PC and (2) discrete channels from internal mic;

RGB Format: RGBHV

RGB Output Resolution, Non-interlaced: 1280 x 768 pixels @ 60 Hz

Connects to QM input port of any QuickMedia device via CresCAT-QM or CresCAT-IM cable

HEADPHONES: (1) 3.5 mm TRS mini phone jack

Output Power: 105 mW per channel

Minimum Impedance: 8 ohms

USB: (2) USB Type A female, USB 1.1 ports for mouse, keyboard, and storage devices*

RS-232: (1) 6-pin RJ11 female, computer console port

Bidirectional RS-232 up to 115.2k baud

Hardware and software handshaking support

PC CARD A – B: (2) Type II PCMCIA Card slots for memory expansion, project upload, and wireless NIC*

ETHERNET: (1) 8-wire RJ45 with 2 LED indicators; 10BaseT/100BaseTX Ethernet port
Green LED indicates network speed, Yellow LED indicates Ethernet activity

NET: (1) 4-pin 3.5mm detachable terminal block

Cresnet Slave Port (data only; 24V terminal not used)

Connects to Cresnet control network

PWR: (1) 4-pin DC power jack, 12.5V DC power input (external power supply included)

PWR OUT: (1) 4-pin DC power jack

Connects to PWR jack using 9-inch 4-pin DC power patch cable (included) when locating power supply remotely; passes 12.5V DC power from PWR IN terminal blocks

PWR IN: (2) 2-pin detachable terminal blocks, paralleled

Used to extend power cabling up to 60 feet using 4 conductor, 14 AWG wire connected to a TPMC-L-IMC power interface module (included) at remote power supply location

G: (1) 6-32 screw, chassis ground lug

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Power Requirements

TPMC-17-QM-L: 8.4 Amps @ 12.5 Volts DC

External Power Supply (included): 2.2 Amps @ 100-250 Volts AC, 50/60 Hz

Cresnet Power Usage: 0 Watt @ 24 Volts DC

Environmental

Temperature: 50° to 113°F (10° to 45°C)

Humidity: 10% to 90% RH (non-condensing)

Enclosure

Construction: Metal, flush mountable, 9U 19" rack-mountable (all mounting kits sold separately)

Front Bezel: Injection-molded plastic; black w/silver or white w/gray accent

Dimensions

Height: 13.81 in (35.06 cm)

Width: 16.98 in (43.11 cm)

Depth: 3.83 in (9.73 cm)

Weight

13.4 lbs (6.10 kg)

SPECIFICATIONS for TPMC-L-IMC Interface Module (Included with TPMC-17-QM-L):

Connectors

PWR IN: (1) 4-pin DC power jack

Connects to 12.5 Volt DC output of PW-1280RU power supply (included)

PWR OUT: (2) 2-pin 7.62mm detachable terminal blocks, paralleled

Used to extend power cabling up to 60 feet using 4 conductor, 14 AWG wire

LED Indicators

PWR: (green) Indicates 12.5 Volts DC power supplied from PW-1280RU (included)

Environmental

Temperature: 41° to 122°F (5° to 50°C)

Humidity: 10% to 90% RH (non-condensing)

Enclosure

Black metal, surface mount box with (2) integral mounting flanges

Dimensions

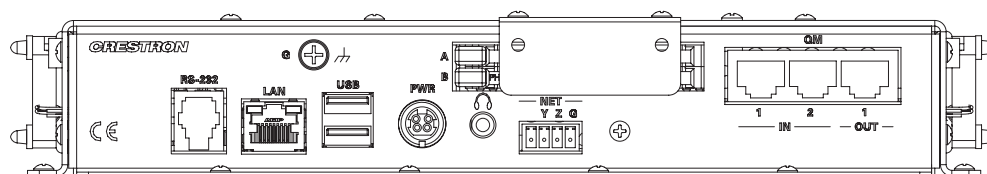
Height: 1.05 in (2.67 cm)

Width: 3.43 in (8.70 cm)

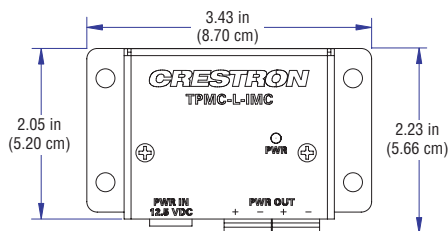
Depth: 2.23 in (5.66 cm)

* See manual or contact Crestron for a current list of compatible devices and embedded applications. To ensure reliable performance, new device drivers and applications are available only from Crestron through firmware updates.

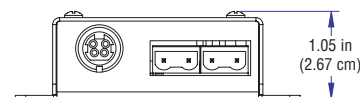
** One or more QuickMedia devices are required to facilitate the input and output of audio, video, and RGB signals. Please visit the Crestron Website for more information about QuickMedia.



TPMC-17-QM-L Touchpanel – I/O panel

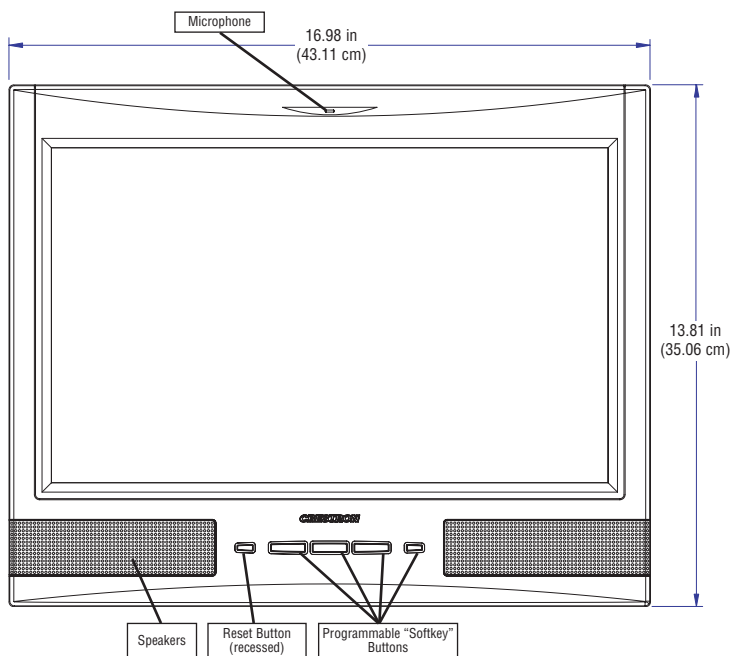


TPMC-L-IMC Interface Module – Top View

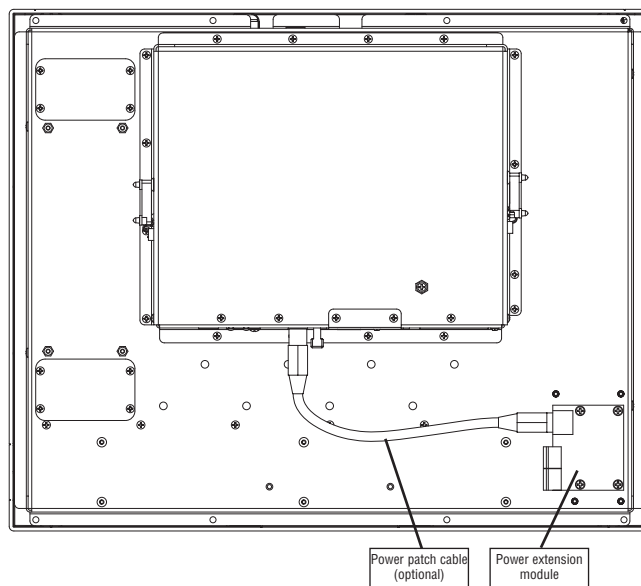


TPMC-L-IMC Interface Module – Front View

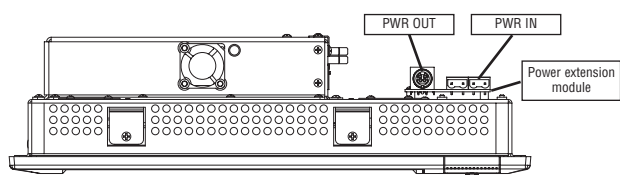
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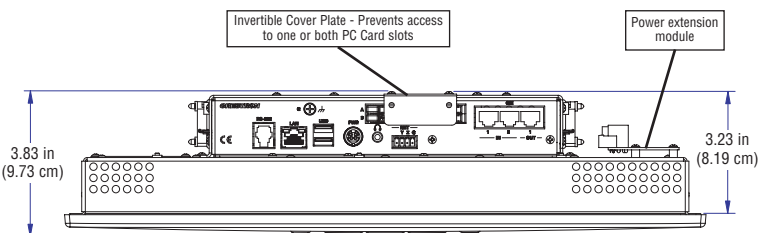
TPMC-17-QM-L Touchpanel – Front View



TPMC-17-QM-L Touchpanel – Rear View (power patch cable installed)



TPMC-17-QM-L Touchpanel – Right Side View



TPMC-17-QM-L Touchpanel – Bottom View

INCLUDED ACCESSORIES

TPMC-L-IMC
Power Interface Module

PW-1280RU
Universal Power Supply

AVAILABLE ACCESSORIES

BB-17L
Pre-Construction Wall Mount Back Box

PMK-17L
Pre-Construction Wall Mount Kit

MMK-17L
Mud Ring

TMK-17L
Trim Ring

WMKT-17L
Post-Construction Wall Mount Kit
with Trim Ring

RMK-17L
Rack Mount Kit

TPMC-10-MSKB
USB Mouse and Keyboard

QM-TX
QuickMedia Transmitter

TPS/TPMC-CBL-T
Triamase Interface Cables